

Project: Scientific methods to study animal behavior

1. Animal models: you can choose any animal you like (including humans): your pets, animals in the park, zoo, aquarium, or your backyard. Discuss with me once you choose an animal.
2. Observe animal behavior for at least 30 mins per period. Observe at least 2 periods (the more the better). Try to focus on the same animal, and observe its behavior at different time of day or under different social circumstances, which may provide a lot of information. I encourage you to observe as many periods as possible.
3. During each observation period, document everything you observe and try to **quantify** it. For example: How many times does the animal feed ? How long does it take to perform that behavior (minutes).
4. Analyze your observed data, make a graph (using Excel, for example).
5. Come up with proximate and ultimate questions, based on your observation data.
6. First report should include the following sections (minimum 3 pages)
 - A. Title
 - B. Introduction (introduce to your reader why you are choosing this animal or why you are choosing this specific behavior for your project)
 - C. Methods (how do you observe the animals, where, when, what are you observing)
 - D. Results (your observation results and graphs)
 - E. Discussion (based on your results, come up with proximate/ultimate questions; you can also include hypothesis and experimental designs in your first report)

----- First report due April 2 -----

7. Choose one of your questions, and come up with more than one hypothesis.
8. Design experiments to test your hypotheses (you may either conduct or propose an experiment).
9. Based on the results, discuss under what circumstances your hypothesis will be approved or falsified.
10. Write your final report.